

GUJARAT TECHNOLOGICAL UNIVERSITY**Subject code: X10002 Subj. Name: Computer Programming and utilization****Date: 21/06/11****Total Marks: 70****Time: 10:30 am to 1:00pm****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) What do you mean by flow chart? What is its importance in programming? How is it implemented? **07**
- (b) What do you mean by algorithm? How it is helpful in writing C Programs? **07**

- Q.2** (a) What is data type? Explain category wise data types of C language. **07**
- (b) Explain different types of errors encounter in 'C' Programs. **07**

OR

- (b) What do you mean by header file? Explain in detail. **07**

- Q.3** (a) Which loop is better for programming? Express your views. **07**
- (b) Write a 'C' Program to sum of digits of given 5digit input number by keyboard. **07**

OR

- Q.3** (a) What do you mean by function prototype? How is it defined in C? Give proper example of it and explain. **07**
- (b) Write a program to separate integer and fractional part of given floating point number. **07**

- Q.4** (a) Trace the output **07**
- | | |
|---|--|
| (i) main()
<pre> { int x = 10; y=2; for(y=0; y<2; ++y) printf("%d,%d",x++,++x); } </pre> | (ii) main()
<pre> {int i=0, x=0; do{ if(i%5 == 0)}x++; printf("%d", x); } ++i; }while(i<20); printf("%d", x);} </pre> |
|---|--|

- (b) What is constructor? How does it differ from simple C++ function? **07**

OR

- Q.4** (a) What is the value of u1 and u2? Also explain logic **07**
- ```

int u1, u2;
int v = 3;
int *v;
u1 = 2 * (v+5);
pv = &v;
u2 = 2(*pv+5);

```

- Q.4** (b) What do you mean by function prototype? How is it define in C? Give proper example of it and explain. **07**

- Q.5** (a) What do you mean by class and object? Explain with example. **07**

- (b) What do you mean by keyword? Explain Static data member and function with example. **07**

**OR**

- Q.5** (a) What do you mean by null value? What is the use of it in String? **07**  
(b) Explain Friend function of C++ with example. **07**

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